



# Public GIS Viewer User Guide

MARCH 2020

# Table of Contents

<b>GIS Viewer Basics.....</b>	<b>1</b>
Basics.....	1
Screen Overview .....	2
<b>Tools .....</b>	<b>5</b>
Visibility .....	5
Measure Tool .....	7
Identify Tool .....	9
Coordinates Tool .....	10
Searches .....	11
Radius Tool.....	19
Download Wells .....	20

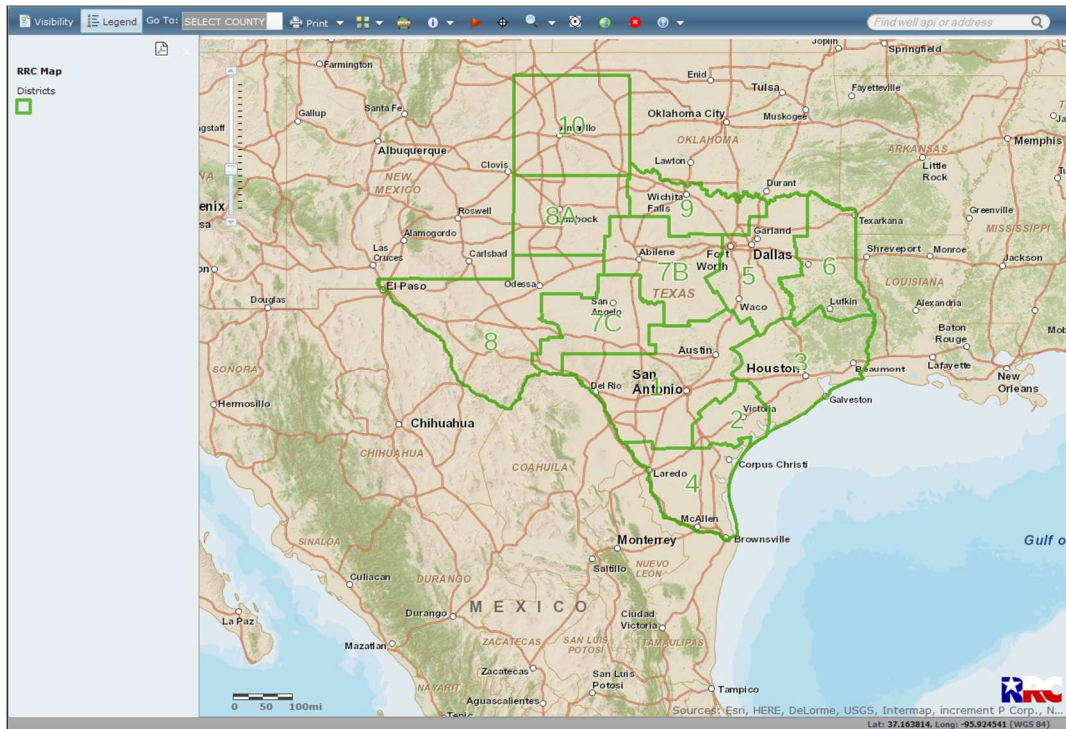
# GIS Viewer Basics

## Basics

The GIS Viewer allows you to view information about wells, pipelines, surveys, LPG/CNG/LNG, Operator Cleanup Program, Voluntary Cleanup Program, Brownfield Response Program, Commercial Waste Disposal sites, Discharge Permits and related features in a map view.

The default view when you open the GIS Viewer is a state map with the *Oil/Gas Districts* layer visible. The *Oil/Gas Districts* layer displays the Railroad Commission's Oil and Gas Division district boundaries and numbers in green. You can view additional layers, such as AED districts, by customizing the [visibility](#).

**TIP:** For the best viewing results, see the [Browser Recommendations](#) below.



## Browser Recommendations

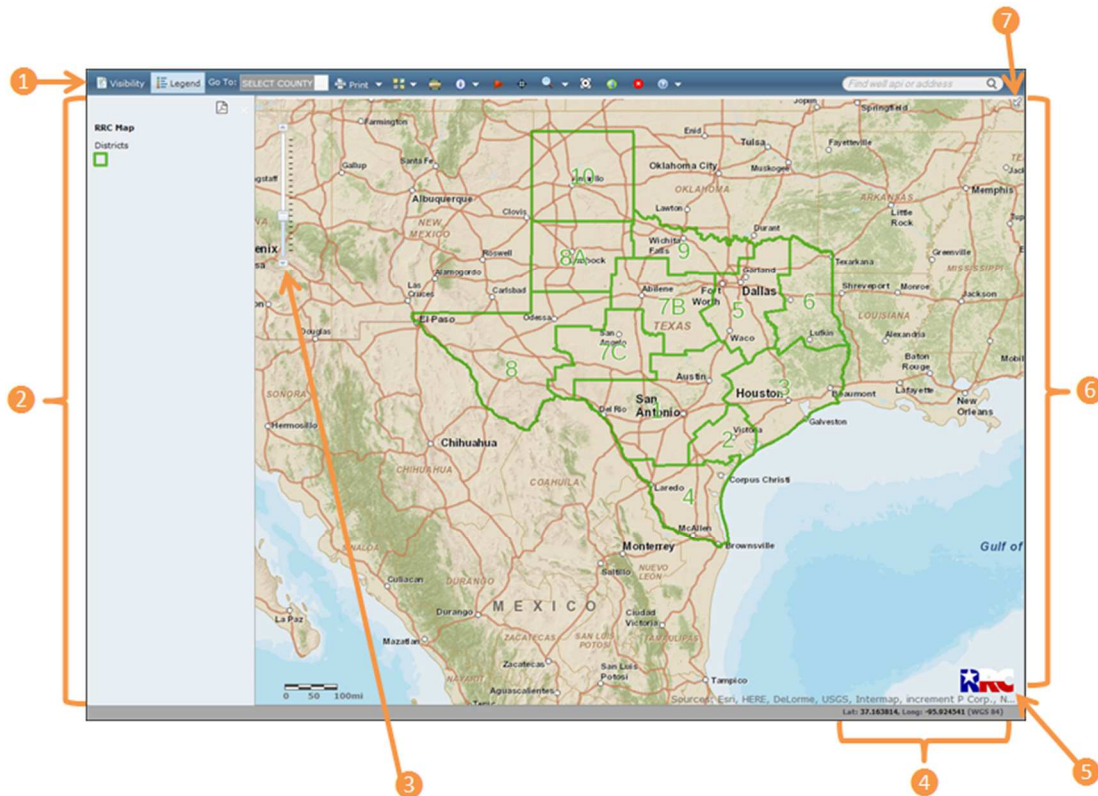
1. Mozilla Firefox 73.0+ and Google Chrome 80.0+ are recommended for the best viewing results.
2. Internet Explorer 11.0 and below are not recommended.
3. JavaScript must be enabled.
4. Pop-up blocking in your browser must be disabled.

**TIP:** To verify that pop-up blocking is disabled on your computer, use our [Pop-up Blocker Test](#).

## Screen Overview

The table below provides a description of the GIS Viewer screen.

**TIP:** For the best viewing results, see the [Browser Recommendations](#).













Area	Description
① <a href="#">Toolbar</a>	Allows you to access the available tools and features for the GIS Viewer.
② <a href="#">Visibility/Legend Pane</a>	Allows you to toggle between the available layers and the associated legend.
③ <a href="#">Zoom Control</a>	Allows you to zoom in or out on the map.
④ <a href="#">Dynamic Coordinates</a>	Displays the World Geodetic System 1984 (WGS 84) coordinates for the location of your cursor on the map. The latitude and longitude are expressed in decimal degrees.
⑤ <a href="#">RRC Button</a>	Allows you to access the <a href="#">RRC Home</a> page.
⑥ <a href="#">Viewing Pane</a>	Displays the map and available layers.
⑦ <a href="#">Screen Overview</a>	Allows you to see an overview of the area you are viewing on the map.

## Toolbar


The toolbar provides access to the available tools and features. Below is a description of the tools.




- **Visibility:** Click the **Visibility** button to choose the layers you want to display on the map. For example, to display pipelines on the map, click the *Pipelines* check box.
- **Legend:** Click the **Legend** button to display the list of items that may display on the map. Items display in the legend as they are made visible on the map. As you zoom in, more items display in the list and can be seen on the map.
- **Go To:** Use the *Go To* drop-down list to select a county to zoom to on the map.
- **Print:** Use the *Print* drop-down list to select a print option. Your print selection displays in another window. You will need to disable pop-up blocking in your browser to view the print selection.
- **Switch Basemap** : Use the *Switch Basemap* drop-down list to choose the basemap that you want to display. By default, *Streets* is selected.
- **Measure** : Click the **Measure** button to access the measure tools that allow you to measure an area, measure the distance between points, or view coordinates for a selected location.
- **Identify** : Allows you to view detailed information about the selected item.
- **What's Here?** : Click the **What's Here?** button, and then select a point on the map to display details.
- **Coordinates** : Allows you to enter specific coordinates that you want to view.
- **Search** : Allows you to search for [pipelines](#), [surveys](#), [lease IDs](#), [commercial waste disposal \(CWD\) sites](#) or [discharge permits](#).
- **Radius Tool** : Allows you to draw a circle at a defined radius around a selected location on the map. This circle has no size limits.
- **Download Wells** : Allows you to draw a circle at a defined radius around a selected location on the map, retrieve well data for the wells within the radius, and export the well data to a comma-separated values (CSV) file.
- **Zoom to Texas** : Allows you to return to the default view.
- **Clear Graphics** : Allows you to clear the graphics on the map.
- **Find Field:** (*Find well API or address*) Enter a well API number or location to zoom to the area on the map. You can enter the following types of location data:

- Street addresses
- Points of interest (e.g., malls and museums)
- Places (e.g., cities and counties)
- Postal codes
- X/Y coordinates (e.g., -97.732, 30.267)

**NOTE:** When using X/Y coordinates, enter in the *longitude, latitude* format. The longitude and latitude must be separated by a comma, space, or semicolon.

- **Help** : Allows you to access GIS Viewer help resources, including web help, a user guide, a glossary, FAQs, and a data sources table.

## Visibility/Legend Pane

Allows you to view the legend for the icons that display on the map. To access a printable version of the legend, click the **Printable Legend (PDF)**  icon. You can click the [Visibility](#) button to select which layers you want to display.

## Zoom Control

Allows you to zoom in or out on the map. You can also use the scroll wheel on your mouse to zoom in and out. To zoom in to a specific location, double-click the location on the map.

## Dynamic Coordinates

Place your cursor over any location in the map to view the WGS 84 coordinates.


## RRC Button

Click the **RRC** button to open the [RRC Home Page](#) in a separate tab.

## Viewing Pane

Displays the map and overlays that you have selected. As you zoom in, more information displays on the map.

## Screen Overview

Click the arrow  to see an overview window that represents the area currently displayed on the map. You can pan the map by clicking and dragging the black box.

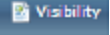


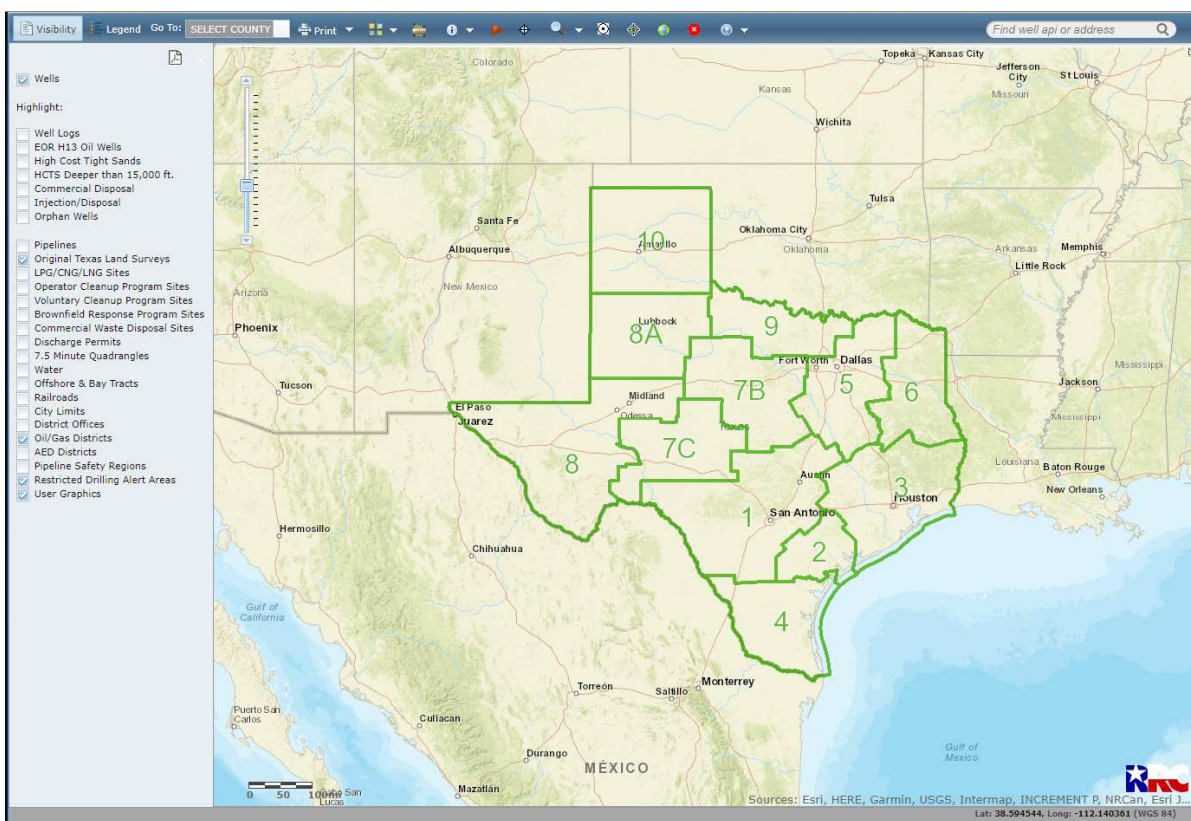
# Tools

## Visibility

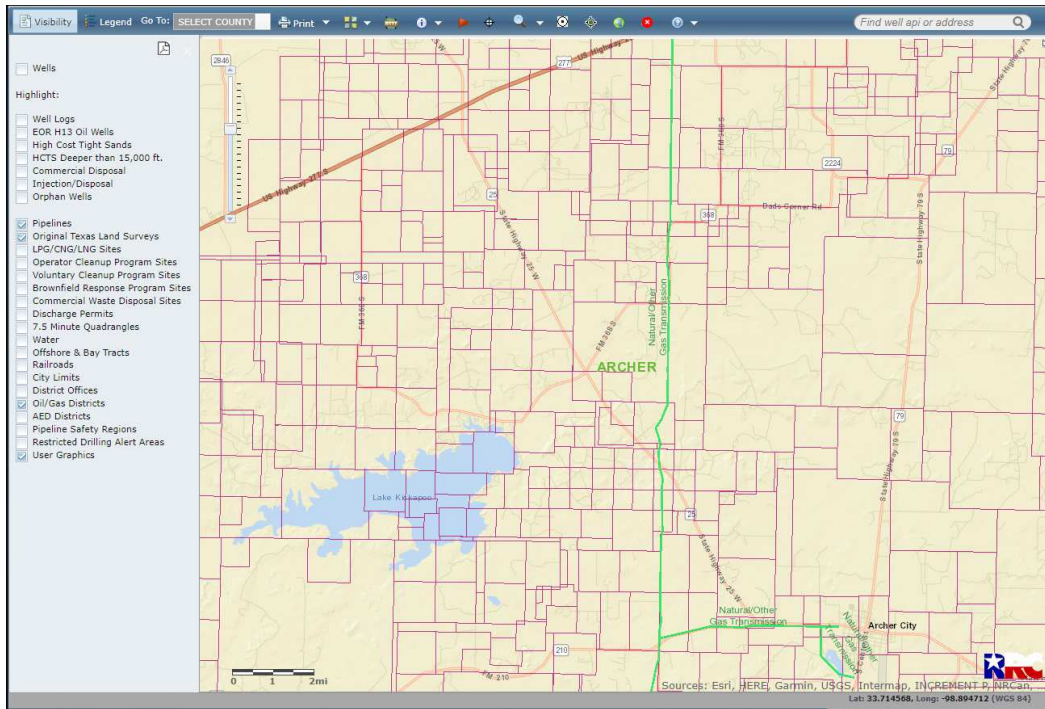
The *Visibility* tool allows you to choose which layers you want to display on the map.

### To Choose a Layer

1. In the toolbar, click the **Visibility**  button. The available layers display in the *Visibility/Legend* pane.



2. Click the check box next to the layers that you want to display.



**IMPORTANT: 1)** It may be necessary to [zoom in](#) to see the selected layers on the map. **2)** It may take a few seconds for the selected layers to display. **3)** Click the **Legend** button to view what each icon represents.


**TIP:** To access a printable version of the legend, click the **Printable Legend (PDF)** icon in the *Legend* pane.

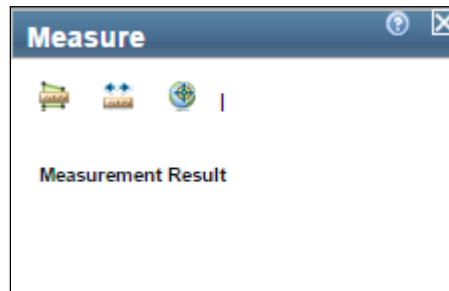



## Measure Tool

The *Measure* tool allows you to measure [area](#) and [distance](#) between selected points and to [view the WGS 84 coordinates](#) of a selected location.

### Measuring an Area

1. Click the **Measure**  button. The *Measure* dialog box displays.




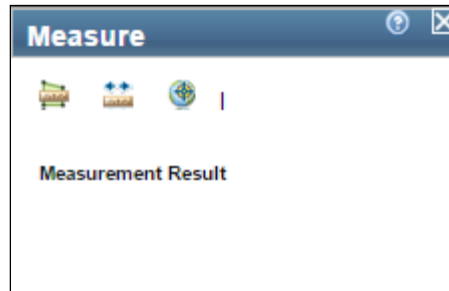
2. Click the **Area**  button. The default measurement unit displays in the dialog box.




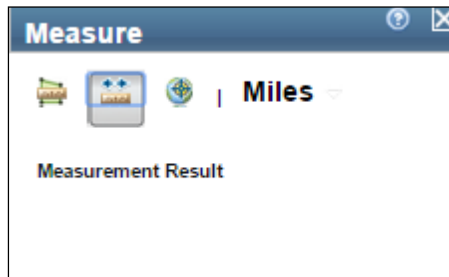
3. Click the drop-down arrow to select the units you want to use in the measurement.
4. In the map, click the points you want to include in the area measurement.
5. After selecting the last point, double-click. The results display in the *Measurement* dialog box.

## Measuring Distance

1. Click the **Measure**  button. The *Measure* dialog box displays.




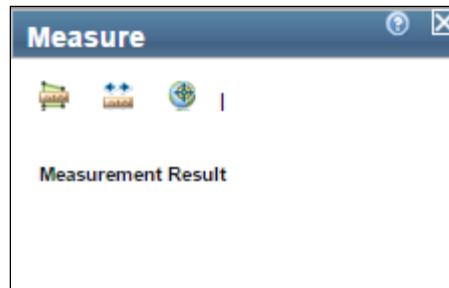
2. Click the **Distance**  button. The default measurement unit displays in the dialog box.



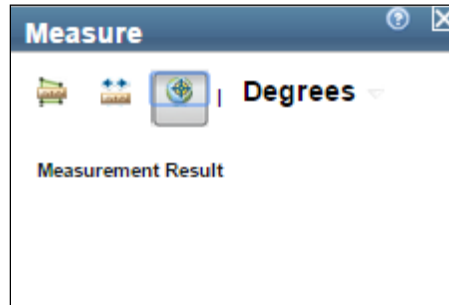
3. Click the drop-down arrow to select the units you want to use in the measurement.
4. In the map, click the points you want to include in the distance measurement. The results display in the *Measurement* dialog box.

## Viewing Coordinates

1. Click the **Measure**  button. The *Measure* dialog box displays.



2. Click the **Location**  button. The default coordinate type displays in the dialog box.




3. Click the drop-down arrow to select the coordinate type you want to use.
4. In the map, click the point. The latitude and longitude coordinates (in the WGS 84 datum) of the selected location display in the *Measurement* dialog box.

## Identify Tool

The *Identify* tool allows you to view additional information on wells, pipelines, surveys, LPG/CNG/LNG sites, OCP sites, VCP and BRP sites, Commercial Waste Disposal Sites and Discharge Permits, and alert areas.


### Using the Identify Tool

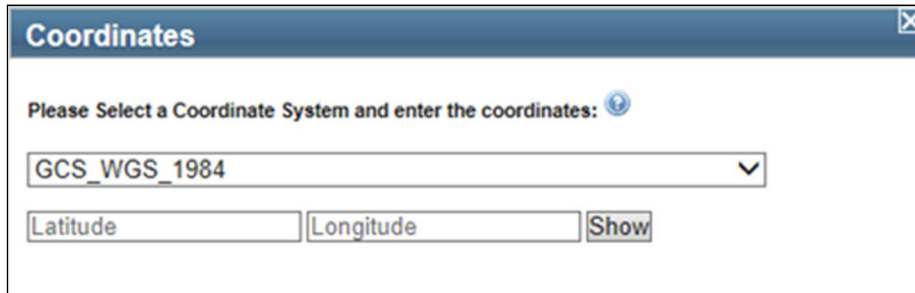
1. Click the **Identify**  button in the toolbar.
2. Select the type of item you want to see additional information for.
3. On the map, click the icon that represents the item. The *GIS Identify Results* dialog box displays with the attributes.
4. To print the attributes, click the **Print** button.

## Coordinates Tool

You can use the *Coordinates* tool to find a specific location on the map.

### Using the Coordinates Tool

1. Click the **Coordinates**  button. The *Coordinates* dialog box displays.



The screenshot shows a dialog box titled "Coordinates" with a close button in the top right corner. Inside the dialog, there is a prompt "Please Select a Coordinate System and enter the coordinates:" followed by a help icon. Below this, there is a drop-down menu currently showing "GCS\_WGS\_1984". At the bottom, there are two input fields labeled "Latitude" and "Longitude", and a "Show" button to their right.

2. Using the drop-down list, select the coordinate system you want to use.
3. Enter the coordinates in the fields.
4. Click the **Show** button. The map zooms to the location.

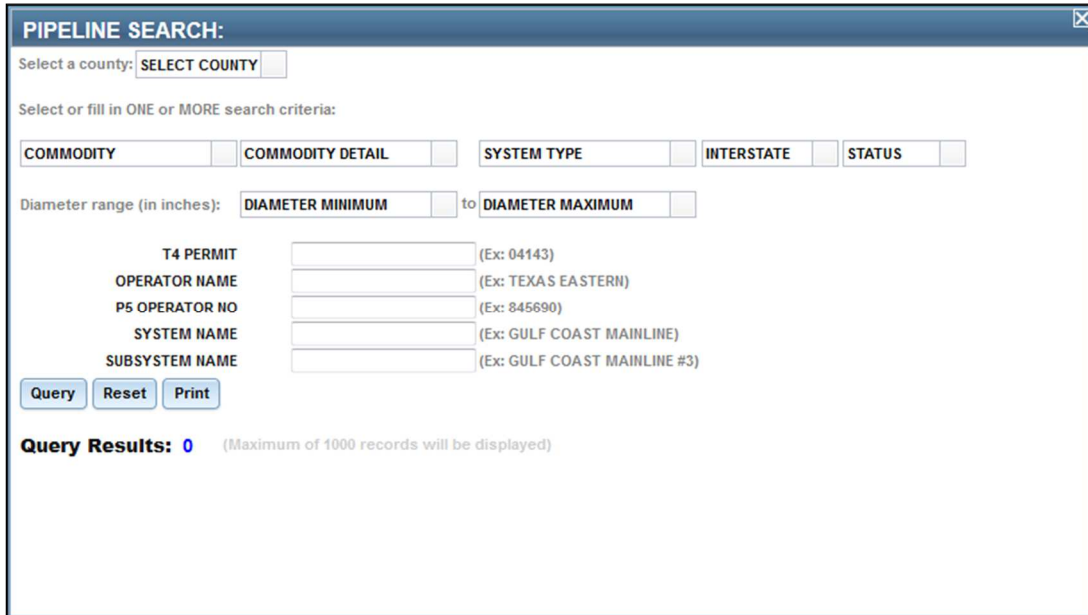
## Searches

You can use the *Search* tool to search for [pipelines](#), [surveys](#), [lease IDs](#), [commercial waste disposal \(CWD\) sites](#) or [discharge permits](#).

### Pipeline Search

You can search for pipelines.

1. Click **Search | Pipelines**. The *Pipeline Search* dialog box displays.



The screenshot shows a web-based dialog box titled "PIPELINE SEARCH:". It contains several search criteria fields: "Select a county:" with a "SELECT COUNTY" dropdown; "Select or fill in ONE or MORE search criteria:" with checkboxes for "COMMODITY", "COMMODITY DETAIL", "SYSTEM TYPE", "INTERSTATE", and "STATUS"; "Diameter range (in inches):" with "DIAMETER MINIMUM" and "DIAMETER MAXIMUM" input fields; and a list of text-based search criteria: "T4 PERMIT", "OPERATOR NAME", "P5 OPERATOR NO", "SYSTEM NAME", and "SUBSYSTEM NAME", each with an input field and an example value in parentheses. At the bottom left are "Query", "Reset", and "Print" buttons. At the bottom, it displays "Query Results: 0" and a note "(Maximum of 1000 records will be displayed)".

2. Using the *Select a County* drop-down list, choose the county you want to use in your search. The map zooms to the selected county.
3. Complete your search criteria by using the drop-down lists and entering text into the available fields.

**TIP:** You can search using partial values in the text fields.

4. Click **Query**. The results display.

**PIPELINE SEARCH:**

Select a county:

Select or fill in ONE or MORE search criteria:

Diameter range (in inches):  to

T4 PERMIT  (Ex: 04143)  
OPERATOR NAME  (Ex: TEXAS EASTERN)  
P5 OPERATOR NO  (Ex: 845690)  
SYSTEM NAME  (Ex: GULF COAST MAINLINE)  
SUBSYSTEM NAME  (Ex: GULF COAST MAINLINE #3)

**Query Results:** 4 (Maximum of 1000 records will be displayed)

County	Operator	Commodity	Commodity Detail	System Type	System Name	Sub System Name	Inter-state	Diameter	Operator P5	T4 Permit	Status	Contact Phone
ARCHER	BP PIPELINES (NORTH AMERICA).INC	Crude Oil	CRUDE OIL	Crude Gathering	HASKELL GATHERING		Yes	4.5	085368	00401	In Service	6308363492

5. A maximum of 1000 results display. If your search returns more than 1000 results, a dialog box notifies you that there are too many results to display on the map.
6. You can sort the results by clicking the heading.
7. To print the query results, click the **Print** button.
8. Click the **Reset** button to clear the search criteria. The county remains selected after clicking *Reset*.

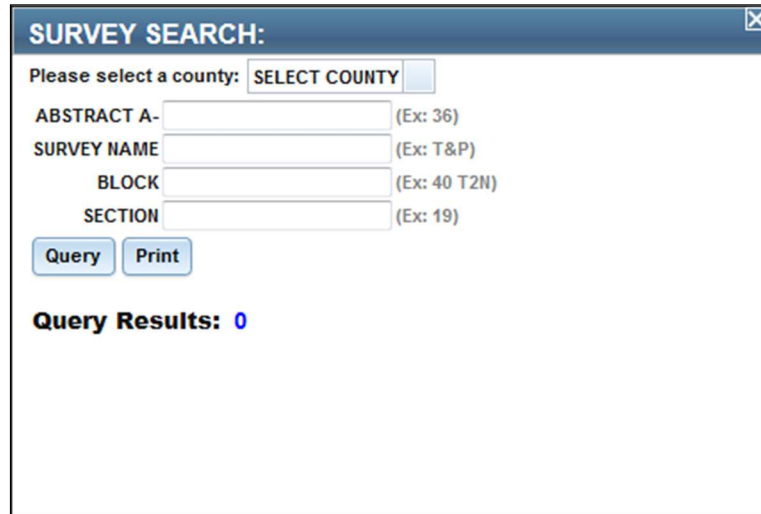
**TIP:** To remove the highlighting from the pipelines, click the **Clear Graphics** button.



## Surveys Search

You can search for surveys.

1. Click **Search | Surveys**. The *Survey Search* dialog box displays.



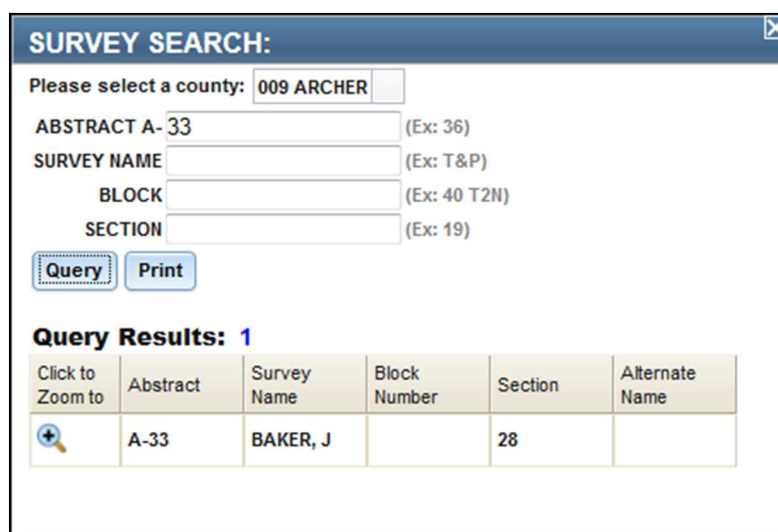
2. Using the *Select a County* drop-down list, choose the county you want to use in your search. The map zooms to the selected county.


**IMPORTANT:** You must select a county to run a survey search. If you have selected a county previously, it displays in the field.

3. Complete your search criteria by entering text into the available fields.

**TIP:** You can search using partial values in the text fields.

4. Click **Query**. The results display.



Click to Zoom to	Abstract	Survey Name	Block Number	Section	Alternate Name
	A-33	BAKER, J		28	

**NOTE:** A maximum of 300 results can display. If your search returns more than 300 results, a dialog box requests that you refine your search criteria to limit the number of search results.

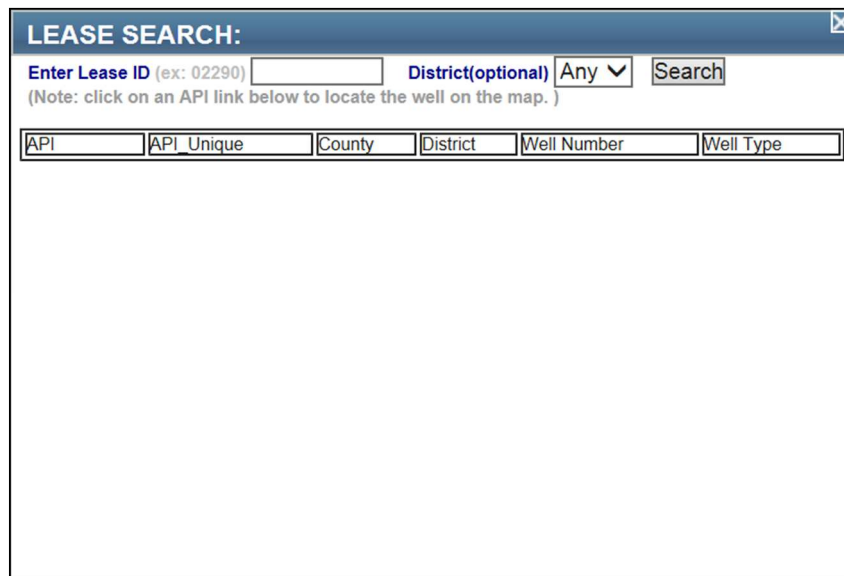
5. To print the query results, click the **Print** button.

**TIP:** To remove the highlighting from the survey boundaries, click the **Clear Graphics** button.

## Lease Id Search

You can search for wells in a specified lease.

1. Click **Search | Lease Id**. The *Lease Search* dialog box displays.



API	API Unique	County	District	Well Number	Well Type
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2. In the *Enter Lease ID* field, enter the lease ID.
3. Using the *District* drop-down list, select a district.

**TIP:** This field is not required.

- Click **Search**. The results display.

LEASE SEARCH:

Enter Lease ID (ex: 02290) 02290
District(optional) 04
Search

(Note: click on an API link below to locate the well on the map.)

Search table:

API	County	District	Well Number	Well Type
<a href="#">355 - 02670</a>	NUECES	04	4 U	OIL
<a href="#">355 - 02672</a>	NUECES	04	6 L	OIL
<a href="#">355 - 02673</a>	NUECES	04	7 U	OIL

Showing 1 to 3 of 3 entries

[Previous](#)
[1](#)
[Next](#)

**TIP: 1)** To view a specific well, click the *API* link. **2)** To remove the highlighting from the well, click the **Clear Graphics** button.

**NOTE:** If you retrieve multiple pages of search results, you can use the **Previous**, **Next**, and page number links at the bottom of the search results list to navigate between the pages.

- If you need to filter the search results, enter a search term in the *Search table* field. For example, you can enter a specific API number or a county name.

LEASE SEARCH:

Enter Lease ID (ex: 02290) 02290
District(optional) 04
Search

(Note: click on an API link below to locate the well on the map.)

Search table: 355 02670

API	County	District	Well Number	Well Type
<a href="#">355 - 02670</a>	NUECES	04	4 U	OIL

Showing 1 to 1 of 1 entries (filtered from 3 total entries)

[Previous](#)
[1](#)
[Next](#)

**NOTE:** When filtering by *API* number, enter a space between the 3-digit FIPS and 5-digit API number (e.g., 355 02670).

6. If you need to sort the search results by a specific column, click the sort arrows in the column header.

**LEASE SEARCH:**

Enter Lease ID (ex: 02290)  District(optional)

(Note: click on an API link below to locate the well on the map.)

Search table:

API	County	District	Well Number	Well Type
<a href="#">255 - 01066</a>	KARNES	02	6	OIL
<a href="#">255 - 01092</a>	KARNES	02	5	OIL

## Commercial Waste Disposal Site Search

You can search for specific disposal sites.

1. Click **Search | CWD Sites**. The *Site Search* dialog box displays.

**Commercial Waste Disposal Site Search:**

Site ID:  (Ex: STF-0086)

Facility Name:  (Ex: Mustang)

Operator Name:  (Ex: Sprint)

**Query Results:**

2. Enter search criteria in one or more of the available fields.
  - In the *Site ID* field, enter a complete or partial Site ID name to locate a specific site.
  - In the *Facility Name* field, enter a complete or partial Facility Name to locate a specific site.
  - In the *Operator Name* field, enter a complete or partial Operator Name to locate sites owned by a specific operator.

**TIP:** Only one field is required to perform a search but providing more information will narrow-down the results.

3. Click the **Query** button to view the results of the query.



**Commercial Waste Disposal Site Search:**

Site ID:  (Ex: STF-0086)  
Facility Name:  (Ex: Mustang)  
Operator Name:  (Ex: Sprint)

**Query Results: 2**

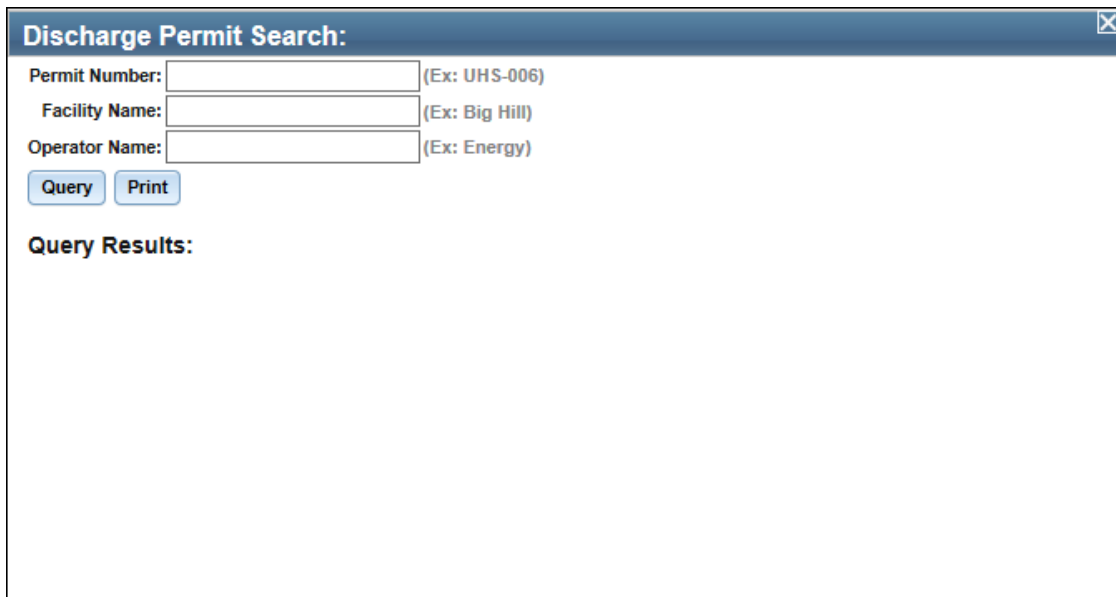
Click to Zoom to	Permit Num	Lease or Facility Name	Operator Name	Permit Type	County
	STF-0030	WASKOM O/G WST SEPARATION TREATM'T STF FACILITY	TOPCAT TRUCK WASH, LLC	STATIONARY TREATMENT FACILITY	HARRISON
	STF-0033	LOS ANGELES TRD STF FACILITY	REPUBLIC EES, LLC	STATIONARY TREATMENT FACILITY	LA SALLE

4. To print the query results, click the **Print** button.

## Discharge Permits Search

You can search for discharge permit locations.

1. Click **Search | Discharge Permits**. The *Permit Search* dialog box displays.



**Discharge Permit Search:**

Permit Number:  (Ex: UHS-006)  
Facility Name:  (Ex: Big Hill)  
Operator Name:  (Ex: Energy)

**Query Results:**

2. Enter search criteria in one or more of the available fields.

- In the *Permit Number* field, enter a complete or partial Permit Number to locate a targeted location.
- In the *Facility Name* field, enter a complete or partial Facility Name to locate a targeted location.
- In the *Operator Name* field, enter a complete or partial Operator Name to locate permits obtained by a specific operator.

**TIP:** Only one field is required to perform a search but providing more information will narrow-down the results.

3. Click the **Query** button to view the results of the query.

Discharge Permit Search:

Permit Number: UHS (Ex: UHS-006)

Facility Name: (Ex: Big Hill)

Operator Name: (Ex: Energy)

Query Print

Query Results: 15

Click to Zoom to	Permit Num	Lease or Facility Name	Operator Name	Permit Type	County	Permit Expiration	NPDes Permit No	Discharge Volume
	UHS-004	BRYAN MOUND STRATEGIC PETROLEUM RESERVE OIL STORAGE FACILITY	U.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
	UHS-005	CLEMENS TERMINAL	CHEVRON PHILLIPS CHEMICAL CO LP	DISCHARGE	BRAZORIA	10/31/2021	TX0007587	
	UHS-005	CLEMENS TERMINAL	CHEVRON PHILLIPS CHEMICAL CO	DISCHARGE	BRAZORIA	10/31/2021	TX0007587	

4. To print the query results, click the **Print** button.

3/11/2020

Print Discharge Permit Search Results

Discharge Permit Search Results


Permit Num	Lease or Facility Name	Operator Name	Permit Type	County	Permit Expiration	NPDes Permit No	Discharg Volume
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	J.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	J.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	J.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	J.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	J.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	



## Radius Tool

The *Radius* tool allows you to create a circle at a defined radius around a specific point on the map.

### Using the Radius Tool

1. Click the **Radius**  button in the toolbar. The *Radius* dialog box displays.



2. In the *Buffer Size* field, enter the radius distance.

IMPORTANT: Depending on the *Buffer Size* you enter, you may have to zoom in to select a point.


3. In the map, click the location to draw the radius. The radius displays around the point.

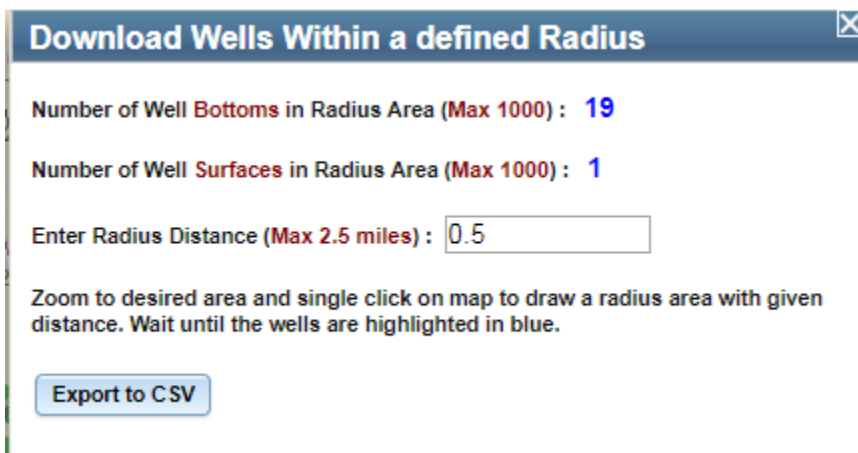
## Download Wells

The *Download Wells* tool allows you to create a circle at a defined radius around a specific point on the map and export information related to the wells within that circle to a comma separated values (CSV) file.

**NOTE:** The *Download Wells* tool can export information for up to 1000 wells that within the circle.

### Using the Download Wells Tool

1. Click the *Download Wells*  button in the toolbar. The *Download Wells* dialog box displays.



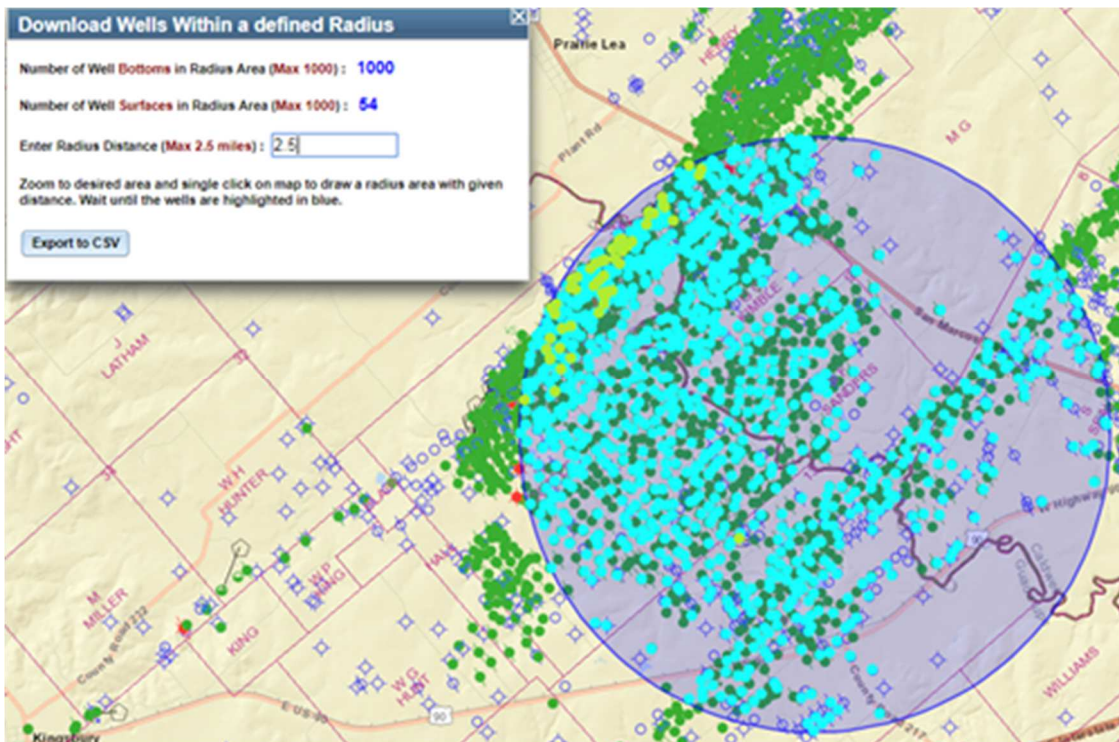
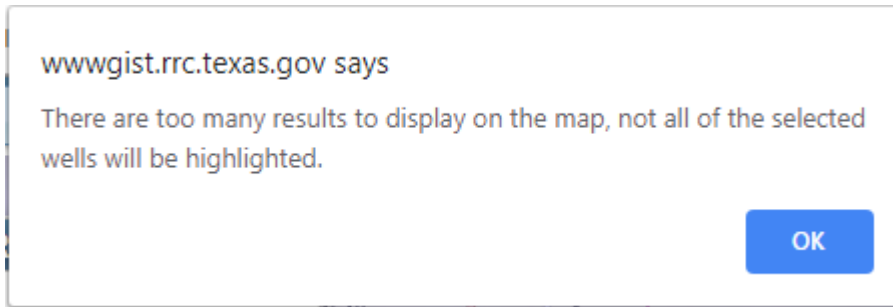
2. In the *Enter Radius Distance* field, enter the radius distance in miles.

**IMPORTANT: 1)** To ensure optimal performance, a maximum radial (buffer) distance of 2.5 miles is allowed. If you enter a distance larger than 2.5 miles, the tool automatically changes the distance to 2.5 mile when you click in the map. **2)** Depending on the distance you enter, you may have to zoom in to select a point.

3. In the map, click the location to draw the circle. The specified radius displays around the point, and the wells in the circle are selected.

**NOTE:** The *Download Wells* tool can export information for up to 1000 wells.

A popup window will display when the well number to be retrieved reaches 1000. Click OK and wait for the process to finish:



4. Click the **Export to CSV** button to export information for the selected wells to a CSV file.

**IMPORTANT WARNING:** To avoid losing leading zeros in some of the exported data, do not save the file in CSV (.csv) format. To preserve the leading zeros use the 'save as' and change the format to Excel Workbook (.xlsx) before saving or renaming the file.

## About the Well Data

The *Download Wells* tool retrieves Geographic Information System (GIS) data for each well in the circular (buffer) area. In addition to the GIS information, the tool also retrieves operator/wellbore information, completion records, and plugging records when applicable to the wells.

The most recent on file operator/wellbore and, if applicable, plugging record information for each well is exported to the CSV file.

All completion records are retrieved for each of the wells. Each completion record has its own row in the CSV file which also contains the most recent operator/wellbore information and, if applicable, plugging record.

**DISCLAIMER:** A “data set” is any set of information electronically generated or stored by Railroad Commission of Texas (Commission) systems, including, but not limited to, the Commission’s Geographic Information System, Online Research Query System, or Mainframe System.

The data sets contained in the Public GIS Viewers were generated from the Commission’s Geographic Information System. These data sets are provided as a public service for informational purposes only. They are **not** intended to be used as an authoritative public record for any geographic location and have no legal force or effect. Organizations and individual users are responsible for verifying the accuracy, completeness, currency, and/or suitability of these data sets themselves.

***The Commission specifically disclaims any and all warranties, representations, or endorsements, express or implied, with regard to these data sets, including, but not limited to, the warranties of merchantability, fitness for a particular purpose, or non-infringement of privately-owned rights.***